

CLEAN VERSION OF SPECIFICATION

DEVICE TO HEAT UP AND KEEP TORTILLAS OR BREAD WARM

[0001] This application is a ***national stage entry*** of PCT/MX2004/000072 filed October 08, 2004, under the International Convention claiming priority over Mexican application No. PA/u/2003/0000248 filed October 10, 2003.

FIELD OF THE INVENTION

[0002] The present invention concerns a self-heatable tortilla holder with an internal reusable source of heat.

BACKGROUND OF THE INVENTION

[0003] Currently, there are some ways of keeping the tortillas or bread, or any other thing that requires to be kept warm, for a given time. These objects are known as 'tortilla holders', which are usually made of materials such as: plastic containers; woven with a natural fiber, such as osier or straw, which are like a small basket with a lid; or the type of bags manufactured with different fabrics or synthetic material. In all of these tortilla holders the tortillas or the bread are previously heated up and the holder just keeps them heated up.

[0004] None of these methods to heat up tortillas or bread has an internal source of heat which operates fully self-sufficiently.

SUMMARY OF THE INVENTION

[0005] The present invention relates to a food heater device comprising:

a thermal bag comprising a first wall and a second wall, wherein the first wall and the second wall are joined by their outer boundary and define a bag having an entry;

a middle wall joined to and placed between the first wall and second wall, wherein the middle wall defines a first compartment and a second compartment;

a reusable heater device to heat up and keep the food warm;

wherein the food is placed on the first compartment;

wherein the reusable heater device is placed on the second compartment;

wherein the food does not have direct contact with the reusable heater device;

wherein the reusable heater device is non-electrical; and

wherein the reusable heater device comprises a sealed plastic bag filled with liquid and a trigger device immersed in the liquid.

[0006] Pressing the trigger creates a phase change reaction from liquid to solid on the liquid inside the heater. The reusable heater device returns to the liquid phase by placing the plastic bag in boiling water.

[0007] Furthermore, the present invention relates to a method for heating and keeping a food warm by using the device according to the present invention.

[0008] The device according to the present invention does not require any preheating, or the use of batteries or electric power and is reusable.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] The details of this novel tortilla holder to heat up and/or keep food warm are clearly shown in the following description, with the relevant illustration, following the same reference signs to specify the parts and figures shown, where:

[00010] FIG. 1. Shows a top view of the heater according to the present invention.

[00011] FIG. 2. Shows a front view of the thermal bag according to the present invention showing the first compartment and the second compartment.

[00012] FIG. 3. Shows a cross-sectional view of the device according to the present invention showing the heater inside it.

[00013] FIG. 4 Shows a perspective view of the device of the present invention showing the device in use with the heater, and the tortillas.

[00014] FIG. 5 Shows a perspective side view of the thermal bag of the present invention showing the different walls of the bag.

DESCRIPTION OF THE INVENTION

[00015] The food heater according to the present invention comprises a reusable heater device 1 to heat up and/or keep the food warm, which includes in combination: (a) a heater device 1, which may be used more than once; and b) a thermal bag 3. The thermal bag comprises a first wall 7 and a second wall 8 joined by their outer boundary, so that they define a bag with an entry. In addition the thermal bag comprises a middle wall 9, joined to and placed between the first wall 7 and second wall 8, defining a first compartment 5, where the food to be heated will be placed, and a second compartment 4, where the removable heater device 1 will be placed.

[00016] The heater device (1) comprises a sealed plastic bag, filled with liquid and a trigger 2 immersed in the liquid. The trigger 2 is activated to make the heating device start heating, after such trigger 2 has been actuated by a user. The trigger 2 may be like a small spring covered with a cylindrical plastic bag or may have the shape of a small metallic disc. When this trigger 2 is pressed and bent, a reaction starts in the liquid contained in the heater 1. The liquid is at room temperature (cold) and then

begins to heat up and gradually passes to the solid state. To reuse this heater 1, it only needs to be placed within a container with boiling water and left to simmer for approximately 10 minutes until it goes back fully to the liquid state and then it is ready to be reused.

[00017] After the heating process has restarted in the heater 1, it is placed inside the second compartment 4 of the thermal bag **3**, which is composed of an isolating fiber to retain the heat that is being emitted from the heater 1. In this way, everything that is placed inside the first compartment 5 of the thermal bag **3** will be heated and kept warm for a while. Nevertheless, any other device or container (thermal bag) may be used to heat up liquid and, also food, as may be easily understood by experts in the field.